REMARKS

Claims 13-19 remain under consideration. The Examiner has issued a second non-final office action. The objections and rejections in the office action are addressed as follows.

Claims 13-19 are objected to because of alleged informalities. Basically, the position of the Examiner is that "the real electron emission layer is the N++ substrate (16), while the RTP later (14) is an insulator which only functions as a tunneling dielectric for the electrons emitted from the electron-supply substrate (16)." The Examiner should reconsider this position, keeping in mind that applicants are entitled to use any terminology that would be understood by artisans.

In this instance, Applicants have consistently referred to the substrate 16 as the electron supply layer, and that is the term used in claim 13. See, also, withdrawn claim 1. The RTP layer has also been consistently referred to as the emission layer. What is proposed by the Examiner is a renaming of the layers in accordance with an apparent preference, which is less suitable than the terminology used by Applicants. It is the tunneling phenomena that permits the necessary acceleration to emit electrons, and the emission occurs as a result of the emission layer.

Aside from the debate over which layer is more appropriately called the emission layer, Applicants' choice of terminology is given deference. The objection overlooks the requisite amount of necessary deference to be applied to Applicants' choice of terminology. The Examiner is reminded that "a fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their own lexicographers. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as the terms are not used in ways that are contrary to accepted meanings in the art." MPEP §2173.01. Also, "the examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available." MPEP §2173.02. Finally, it is apparent that the objection is based merely upon the opinion of the Examiner that there is better terminology than used by Applicants, but here again the MPEP counsels

against enforcing the Examiner's preference for language: "Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire." MPEP §2173.02.

Claim 18 again stands rejected under 35 U.S.C. §112, first paragraph. The rejection is respectfully traversed. Applicants' previous discussion of this matter remains unaddressed in the current office action. With the lack of progress on this issue, Applicants now make an amendment to claim 18 to make explicit what was clear in the claim's original scope, but is believed to be unappreciated by the Examiner in asserting the rejection. Hopefully, this amendment, which does not change the scope of the claims as would have been understood by artisans, will expedite prosecution and finally resolve this issue.

A central tenet in the rejection asserted by the Examiner is that "the disclosure lacks an adequate description or reference regarding how the recited SiO_2 material and the recited SiO_xN_y material can be both form during the same RTP". By the amendment to claim 18, it is now even more explicit that the layers do not form simultaneously, but sequentially, which is the clear meaning that any artisans would have given the claim. The rejection should be withdrawn.

Claims 13, 18 and 19 stand rejected under §103 as being obvious over JP '986 in view of published patent applications to Wawer and/or Su. The rejection is respectfully traversed. Applicants first point out that the decision to reject the claims is apparently made apart from the evidence of record. The previous rejection was based upon JP '986 and U.S. '080. The traversal of that rejection was successful, and Applicants appreciate that the Examiner withdrew the rejection. However, now the Examiner determines that JP '986 may be combined with two other references. The only stated basis for the new combination is that artisans would recognize that the process is "desirable for achieving high quality and low thermal budget for the tunneling dielectric layer". Forming the new combination of references is itself evidence that the decision to combine is based upon hindsight, and not the content of the references. The decision to try to find some combination of references was made, and then the rejection was put together like a puzzle, using the claim features as a guide. There has been no proper showing of

evidence of motivation, and the manner of using alternate combinations with the JP '986 reference shows an improper attempt to use a hindsight reconstruction with a mosaic of references to reject the claims. This, in and of itself, is a basis for traversal of the rejection.

Applicants also traverse because the new rejection repeats an incorrect assertion regarding JP '986 that was made in the previous rejection. The new rejection again incorrectly repeats that JP '986 discloses "forming an emission layer (SiO_2) within the emission area with a thermal formation process." With reference to Figure 1 of JP '986, the oxide film 2, which may be SiO_2, "is formed by wet oxidation." A tunnel oxide portion of the film 2a is formed by gettering processing. This is stated in paragraph 15 of the translation. Wet oxidation and gettering are not rapid thermal formation processes. Accordingly, the Examiner's interpretation of JP '986 is incorrect. There is no suggestion of a rapid thermal formation of an oxide layer in JP'986.

The Examiner new combination proposed by the Examiner also ignores that the explicit processes selected in JP '086 are technically inconsistent with the proposed modifications and the proposed modifications are therefore unsupported by the evidence. The JP '086 patent specifies particular oxidation processes, namely gettering processing and particularly halogen addition oxidation style processing. The entirety of paragraph 15 is devoted to a particular process for oxidation to form the tunnel oxide film 2a. An artisan would not be motivated to replace this process described with such particularity since JP '086 quite clearly deems it critical to the invention described therein.

The new office action also has overlooked Applicants pointing out that JP '986 also fails to disclose the claimed separate step of forming an emission layer in claim 13. The examiner asserts that JP '986 includes separate steps of "forming a patterned oxide layer" and "forming an emission layer," in accordance with claim 13. However, according to claim 13, a patterned oxide layer is formed to define an emission area upon an electron supply layer. The next step then uses a rapid thermal formation process to form an emission layer within the emission area. With reference to JP '986, and paragraphs 13-15 in particular, the oxide film 2 is deposited by wet oxidation, and then a portion of the film is converted by the thermal oxidation. Thus, there is no step

corresponding to the separate step of forming an emission layer in claim 13.

Applicants again separately traverse the rejection with regard to claim 18. It was pointed out in the previous response that it is improper and unreasonable to give two different terms in the same claim the exact same meaning, but the Examiner makes that exact interpretation in the rejection by stating that the SiO_2 layer and the SiO_XN_Y layers can both be SiO_2. This is not a reasonable interpretation of the claim. The use of separate terms necessarily implies separate materials.

These defects are not cured by Wawer. Wawer is unconcerned with forming emitters, and an artisan accordingly would not look to Wawer to modify JP '986. In paragraph 39, Wawer discloses that it is known to use RTP to form a SiO_2 layer by RTP. This does not suggest any particular modification to JP '986, however, and does not provide a teaching to replace the detailed process of converting by gettering processing as disclosed in JP '986. Wawer is direct to forming an EEPROM, and does not suggest replacing the particular type of process in JP '986 with an RTP formation process. The same is true for Su. Su discloses, in more detail then Wawer, RTP formation of SiO_2. However, Su is concerned with forming. Su is also concerned with forming EEPROMs, and does not suggest modifications of JP '986's particular emitter formation process. None of the references suggest first defining an emission area and then forming by RTP the claimed emission layer. Also, regarding claim 18, the art as a whole (even if it could be properly combined) is completely silent as to the combination layer with the two particular materials defined in claim 18.

The separate patentability of the claims not discussed is maintained. Applicants deem the above to be a sufficient traversal of the outstanding rejections.

For the foregoing reasons, Applicants believe that this case is in condition for allowance, which is respectfully requested. The Examiner should call Applicants' attorney if an interview would expedite prosecution.

Respectfully submitted,

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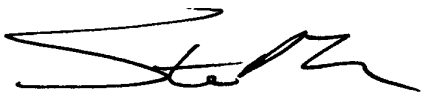
By 

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